

5/15

SPLIT

| | | |
|-----------------------------|--------------|---------|
| DART AEROSPACE LTD | Work Order: | 22834B |
| Description: Ø2.750 Support | Part Number: | D2893-1 |
| Dwg: D2893 Rev. A1 | Qty: | 6 to |
| Page 1 of 1 | | |

03.06.09

| Step | Location | Procedure | By | Date | Qty |
|------|----------|---|-----|----------|-----|
| 1 | DC | Issue Traveller. Blank size makes (2) D2893-1 Dwg not required | HA | 05.03.23 | 10 |
| 2 | PG | Issue P/O: 2007787 Description: D6104-005 Material: 17-4 PH SS (AMS 5643 OR AISI 630) as per Dwg D6104 Material release note required. | U | 05.03.24 | 10 |
| 3 | RG | Receive and Inspect for raw material dimensions. Ensure material release note is attached. | CH | 05/04/04 | 10 |
| 4 | MS | Turn blank for Haas as per Folio FA081 | HA | 05/05/11 | 7 |
| 5 | QC1 | Inspect all dimensions as per Dwg D2893 | EP | 05/05/14 | 34 |
| 6 | MV | Machine as per Folio FA081 | EP | 05/05/14 | 34 |
| 7 | MV | Tumble & Debur | EP | 05/05/16 | 34 |
| 8 | QC1 | Inspect all dimensions to inspection sheet as per Dwg D2893 | EP | 05/05/16 | 34 |
| 9 | QC8 | Inspect dimensions for second check | ML | 05/05/16 | 34 |
| 10 | FP | Powder Coat White (4.3.5.2) per QSI 005 4.3 | ML | 05.05.31 | 3 |
| 11 | QC3 | Inspect Powder Coat | ML | 05-06-01 | 6 |
| 12 | ST | Identify and stock | ML | 05-06-01 | 6 |
| 13 | AC | Cost / part 207.84 | 545 | 05.06.03 | 6 |
| 14 | DC | Close W/O 207.84 Inspect Level 21 | HA | 05.06.03 | 6 |

Ad
Pto
Bar

???

| Rev | Date | Change | Revised By | Approved |
|-----|----------|---------------------|------------|----------|
| A | 01.01.08 | Preliminary Issue | EC | |
| B | 01.07.19 | Heat treat removed | NG | |
| C | 02.11.26 | Reformat; Added P/O | KJ | |

RELEASED
02.11.29 RF

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|---------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Mfg / Design Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|----------|------|---|-----------------------------|----------------------------------|----------------|---------------------------|------------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Design Mgr | Approval QC Inspector |
| | | | Initial Design Mgr | Action Description Design Mgr | Sign & Date | | | |
| 05/05/12 | #4 | Part is too short by .030" will not fit in milling jig 0.025" missing in length of hole description | | | | | | |
| 05/05/12 | #6 | one part scrap hole pattern off. | | Lost tray | | | | |
| | | | | | | | | |

Part No: D2893-1 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____

| | | | |
|-------------------------------|--|--------------|---------|
| DART AEROSPACE LTD | | Work Order: | 22834 |
| Description: Ø2.750 Support | | Part Number: | D2893-1 |
| Inspection Dwg: D2893 Rev. A1 | | Page 1 of 1 | |

Inspect dimensions highlighted on inspection sheet drawing D2893 Rev A1/DSK078 Rev A and record below:

| | | | | Recorded Actual Dimensions | | | | | |
|---------------|-------|-------|----------------|----------------------------|-------|-------|-------|----|------|
| Dim | Min | Max | Go/No Go Gauge | 1 | 2 | 3 | 4 | By | Date |
| Lathe Section | | | | | | | | | |
| A | 2.707 | 2.712 | | 2.712 | 2.710 | 2.712 | 2.711 | | |
| B | 4.946 | 4.966 | | 4.953 | 4.955 | 4.959 | 4.962 | | |
| C | 3.064 | 3.084 | | 3.073 | 3.072 | 3.075 | 3.075 | | |
| D | 0.718 | 0.738 | | 0.728 | 0.728 | 0.728 | 0.726 | | |
| E | 0.090 | 0.110 | | 0.094 | 0.095 | 0.100 | 0.096 | | |
| F | 2.934 | 2.954 | | 2.945 | 2.946 | 2.945 | 2.945 | | |
| G | 2.166 | 2.186 | | 2.172 | 2.173 | 2.177 | 2.175 | | |
| H | 3.890 | 3.910 | | 3.899 | 3.902 | 3.890 | 3.897 | | |
| I | 0.914 | 0.934 | | 0.930 | 0.930 | 0.939 | 0.930 | | |
| J | 0.022 | 0.042 | | R.032 | R.032 | R.032 | R.032 | | |
| K | 0.109 | 0.129 | | 0.116 | 0.118 | 0.114 | 0.120 | | |
| L | | | | | | | | | |
| HAAS Section | | | | | | | | | |
| AA | 2.985 | 3.005 | | 2.995 | 2.997 | 2.997 | 2.996 | | |
| AB | 0.440 | 0.460 | | 0.450 | 0.450 | 0.450 | 0.450 | | |
| AC | 0.125 | 0.160 | | 0.143 | 0.143 | 0.138 | 0.137 | | |
| AD | 0.040 | 0.060 | | 0.052 | 0.044 | 0.043 | 0.045 | | |
| AE | 0.188 | 0.193 | DT8706 | 0.182 | 0.188 | 0.188 | 0.188 | | |
| AF | 0.125 | 0.160 | | 0.151 | 0.151 | 0.147 | 0.146 | | |
| AG | 0.140 | 0.160 | | 0.151 | 0.148 | 0.149 | 0.143 | | |
| AH | 1.360 | 1.400 | | 1.390 | 1.386 | 1.382 | 1.382 | | |
| AI | 0.040 | 0.060 | | 0.047 | 0.051 | 0.045 | 0.041 | | |
| AJ | 1.190 | 1.230 | | 1.190 | 1.190 | 1.190 | 1.190 | | |
| AK | 0.010 | 0.020 | | 0.010 | 0.016 | 0.010 | 0.010 | | |
| AL | 0.053 | 0.073 | | 0.063 | 0.063 | 0.063 | 0.063 | | |
| AM | 0.240 | 0.260 | | 0.250 | 0.250 | 0.250 | 0.250 | | |
| AN | 2.518 | 2.538 | | 2.518 | 2.518 | 2.528 | 2.528 | | |
| AO | 84.39 | 90.39 | DT8699 | 84.39 | 84.39 | ✓ | ✓ | | |
| AP | 0.257 | 0.262 | DT8683 | 0.258 | 0.258 | 0.258 | 0.258 | | |
| AQ | 0.053 | 0.073 | | 0.063 | 0.063 | 0.063 | 0.063 | | |
| AR | | | | | | | | | |
| AS | | | | | | | | | |
| Accept/Reject | | | | | | | | | |

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|--------------|----------|
| Measured by: | JLH 13.5 |
| Date: | 05.05.11 |

| | |
|-------------|----------|
| Audited by: | BC |
| Date: | 05/05/16 |

| Rev | Date | Change | Revised by | Approved |
|-----|----------|-----------|------------|----------|
| A | 02.12.13 | New Issue | KJ/RF | RE |

RELEASED
03.07.01

| | | |
|--------------------------------------|--|-----------------------------|
| DART AEROSPACE LTD | | Work Order: 22834 |
| Description: Ø2.750 Support | | Part Number: D2893-1 |
| Inspection Dwg: D2893 Rev. A1 | | Page 1 of 1 |

Inspect dimensions highlighted on inspection sheet drawing D2893 Rev A1/DSK078 Rev A and record below:

| | | | | Recorded Actual Dimensions | | | | | |
|----------------------|-------|-------|----------------|----------------------------|-------|-------|-------|----|------|
| Dim | Min | Max | Go/No Go Gauge | 1 | 2 | 3 | 4 | By | Date |
| Lathe Section | | | | | | | | | |
| A | 2.707 | 2.712 | | 2.712 | 2.712 | 2.714 | 2.711 | | |
| B | 4.946 | 4.966 | | 4.953 | 4.956 | 4.962 | 4.966 | | |
| C | 3.064 | 3.084 | | 3.069 | 3.068 | 3.070 | 3.078 | | |
| D | 0.718 | 0.738 | | 0.728 | 0.728 | 0.728 | 0.725 | | |
| E | 0.090 | 0.110 | | 0.100 | 0.100 | 0.100 | 0.100 | | |
| F | 2.934 | 2.954 | | 2.945 | 2.945 | 2.945 | 2.945 | | |
| G | 2.166 | 2.186 | | 2.172 | 2.175 | 2.175 | 2.175 | | |
| H | 3.890 | 3.910 | | 3.897 | 3.890 | 3.890 | 3.890 | | |
| I | 0.914 | 0.934 | | 0.930 | 0.930 | 0.930 | 0.930 | | |
| J | 0.022 | 0.042 | | 0.032 | 0.032 | 0.032 | 0.032 | | |
| K | 0.109 | 0.129 | | 0.120 | 0.120 | 0.120 | 0.120 | | |
| L | | | | | | | | | |
| HAAS Section | | | | | | | | | |
| AA | 2.985 | 3.005 | | 3.005 | 3.005 | 3.002 | 3.002 | | |
| AB | 0.440 | 0.460 | | 0.450 | 0.450 | 0.450 | 0.450 | | |
| AC | 0.125 | 0.160 | | 0.151 | 0.150 | 0.148 | 0.151 | | |
| AD | 0.040 | 0.060 | | 0.047 | 0.047 | 0.047 | 0.042 | | |
| AE | 0.188 | 0.193 | DT8706 | 0.188 | 0.188 | 0.188 | 0.188 | | |
| AF | 0.125 | 0.160 | | 0.149 | 0.151 | 0.148 | 0.149 | | |
| AG | 0.140 | 0.160 | | 0.148 | 0.150 | 0.150 | 0.147 | | |
| AH | 1.360 | 1.400 | | 1.382 | 1.382 | 1.380 | 1.380 | | |
| AI | 0.040 | 0.060 | | 0.042 | 0.045 | 0.040 | 0.042 | | |
| AJ | 1.190 | 1.230 | | 1.210 | 1.210 | 1.210 | 1.217 | | |
| AK | 0.010 | 0.020 | | 0.010 | 0.010 | 0.010 | 0.010 | | |
| AL | 0.053 | 0.073 | | 0.063 | 0.063 | 0.063 | 0.063 | | |
| AM | 0.240 | 0.260 | | 0.250 | 0.250 | 0.250 | 0.250 | | |
| AN | 2.518 | 2.538 | | 2.528 | 2.528 | 2.528 | 2.528 | | |
| AO | 84.39 | 90.39 | DT8699 | | | | | | |
| AP | 0.257 | 0.262 | DT8683 | 0.257 | 0.257 | 0.257 | 0.257 | | |
| AQ | 0.053 | 0.073 | | 0.063 | 0.063 | 0.063 | 0.063 | | |
| AR | | | | | | | | | |
| AS | | | | | | | | | |
| Accept/Reject | | | | | | | | | |

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|-----------------|
| Measured by: En |
| Date: 05/05/16 |

| |
|-------------|
| Audited by: |
| Date: |

| Rev | Date | Change | Revised by | Approved |
|-----|----------|-----------|------------|----------|
| A | 02.12.13 | New Issue | KJ/RF | RF |

RELEASED
03.07.01

| | | | | | |
|-------------------------------|--|--|--|----------------------|--|
| DART AEROSPACE LTD | | | | Work Order: 22834 | |
| Description: Ø2.750 Support | | | | Part Number: D2893-1 | |
| Inspection Dwg: D2893 Rev. A1 | | | | Page 1 of 1 | |

Inspect dimensions highlighted on inspection sheet drawing D2893 Rev A1/DSK078 Rev A and record below:

| | | | | Recorded Actual Dimensions | | | | | |
|---------------|-------|-------|----------------|----------------------------|--------|---|---|----|------|
| Dim | Min | Max | Go/No Go Gauge | 1 | 2 | 3 | 4 | By | Date |
| Lathe Section | | | | | | | | | |
| A | 2.707 | 2.712 | | 2.711 | 2.712 | | | | |
| B | 4.946 | 4.966 | | 4.952 | 4.950 | | | | |
| C | 3.064 | 3.084 | | 3.075 | 3.074 | | | | |
| D | 0.718 | 0.738 | | 0.730 | 0.729 | | | | |
| E | 0.090 | 0.110 | | 0.098 | 0.098 | | | | |
| F | 2.934 | 2.954 | | 2.945 | 2.945 | | | | |
| G | 2.166 | 2.186 | | 2.177 | 2.176 | | | | |
| H | 3.890 | 3.910 | | 3.899 | 3.900 | | | | |
| I | 0.914 | 0.934 | | 0.930 | 0.930 | | | | |
| J | 0.022 | 0.042 | | 0.032 | 0.032 | | | | |
| K | 0.109 | 0.129 | | 0.115 | 0.117 | | | | |
| L | | | | | | | | | |
| HAAS Section | | | | | | | | | |
| AA | 2.985 | 3.005 | | 3.003 | 3.002 | | | | |
| AB | 0.440 | 0.460 | | 0.450 | 0.450 | | | | |
| AC | 0.125 | 0.160 | | 0.148 | 0.148 | | | | |
| AD | 0.040 | 0.060 | | 0.040 | 0.041 | | | | |
| AE | 0.188 | 0.193 | DT8706 | 0.188 | 0.188 | | | | |
| AF | 0.125 | 0.160 | | 0.140 | 0.143 | | | | |
| AG | 0.140 | 0.160 | | 0.149 | 0.149 | | | | |
| AH | 1.360 | 1.400 | | 1.382 | 1.3802 | | | | |
| AI | 0.040 | 0.060 | | 0.052 | 0.048 | | | | |
| AJ | 1.190 | 1.230 | | 1.222 | 1.218 | | | | |
| AK | 0.010 | 0.020 | | 0.010 | 0.010 | | | | |
| AL | 0.053 | 0.073 | | 0.063 | 0.067 | | | | |
| AM | 0.240 | 0.260 | | 0.250 | 0.7 | | | | |
| AN | 2.518 | 2.538 | | | | | | | |
| AO | 84.39 | 90.39 | DT8699 | | | | | | |
| AP | 0.257 | 0.262 | DT8683 | 0.257 | | | | | |
| AQ | 0.053 | 0.073 | | 0.0 | | | | | |
| AR | | | | | | | | | |
| AS | | | | | | | | | |

Accept/Reject

| | |
|--------------|----------|
| Measured by: | EP |
| Date: | 02/05/16 |

| Rev | Date | Change |
|-----|----------|-----------|
| A | 02.12.13 | New Issue |

Job Costing Report

Dart Aerospace Ltd.
Hawkesbury

Mar 23, 2005
07:09 am

Work Order No : 0022834
Project Name : D2893-1
Project For : WK515
Work Order Type : Main
Main WO Number :
House Part Number : D2893-1
Description : Support
Manufactured : Yes
Amount Req'd : 10
Amount Done : 0
Start Date : 03-23-05
Est Finish Date : 04-15-05
Act Finish Date :
Drawings Req'd : No
Ok for Approval :
Approval Rec'd :

Department Code:
Burden Flags : NNNNNNNN
WO Status : Open
Invoice State : Not Invoiced
Invoice Date :
Invoice Number :
Invoice Amount : 0.00
Order Entry No :
OE Value : 0.00
Est Mark Up : 0.000%
Actual Mark Up : 0.000%
\$0 Posted to Finished Goods

| | Estimated | Actual | Var. % | Posted | To Post |
|---------------------|-----------|--------|--------|--------|---------|
| Material Cost : | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Engineering Hours : | 0.00 | 0.00 | 0.00 | | |
| Engineering Cost : | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Production Hours : | 0.00 | 0.00 | 0.00 | | |
| Production Cost : | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Packaging Hours : | 0.00 | 0.00 | 0.00 | | |
| Packaging Cost : | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| OverHead Hours : | 0.00 | 0.00 | 0.00 | | |
| OverHead Cost : | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CNC Hours : | 0.00 | 0.00 | 0.00 | | |
| CNC : | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Misc. Hours : | 0.00 | 0.00 | 0.00 | | |
| Misc. : | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Burden : | 0.00 | 0.00 | 0.00 | | |
| Total Cost : | 0.00 | 0.00 | 0.00 | | |
| Mark up : | 0.000 | 0.000 | | | |
| Selling Cost : | 0.00 | 0.00 | | | |

| | | |
|--------------------------|-----------|--------|
| | Estimated | Actual |
| Labour Hrs/Amount Done : | 0.00 | 0.00 |
| Profits/(Loss) : | 0.00 | 0.00 |



Certificate of Test



* CERTIFICATION *

HEAT 62659

ORDER 0465704/001 SON 4270076 BOL 0128175 TAG 1648679 10/14/

SHIP TO:
COPPER AND BRASS SALES
4601 34TH STREET SW
SUITE 107
ORLANDO

FL 32811

----- YOUR ORDER & DATE -----
CA7349 10/14/04 CUST# COPBRA01 CUST TAG#408860-5

----- ITEM DESCRIPTION -----
GRADE 17-4
Size 17-4 HRART RND BAR 4 STD Country of Melt: BRI
Ship Condition A Country of Mfg.: BRI
NAFTA Country of Origin is Country of Melt

Total Bundles 1 SON Weight 4222

----- SPECIFICATIONS -----
AMS 2303E AMS 5643Q
ASME SA564 E01 ASTM A484 03A
DIN 50049/EN 10204 3.1B AISI 630, UNS S17400
COPPER & BRASS 17-4 PH MAXX MAXX STAINLESS STEEL BAR
ASTM A564 02A TYPE 630 NO WELD REPAIR
FREE OF MERCURY CONTAMINATION

----- MECHANICAL & OTHER TESTS -----
Test Condition H900
Hardness as shipped (352 HBW) Hardness as tested (415 HBW)
Hardness as shipped 38 HRC Hardness as tested 45 HRC
Grain size 7.0 Tensile strength, KSI (MPa) 204.0 (1407)
Micro OK 0.2% Yield Strngth, KSI (MPa) 176.0 (1214)
Intergranular corrosion OK
Macro OK
Elongation % in 4D 17.0
Reduction of area % 47.0
Hardenability HRC45

----- CHEMICAL COMPOSITION -----
Carbon (C) .061 Manganese (Mn) .870
Phosphorus (P) .021 Sulphur (S) .002
Silicon (Si) .370 Chromium (Cr) 15.740
Nickel (Ni) 4.210 Copper (Cu) 3.380
Moly (Mo) .070 Nitrogen (N) .042
Columbium (Cb) .350 .000
Columbium/
Tantalum (Cb+Ta) .350
Iron (Fe) Balance
Frequency .000
Melt Practice EAF
Refining Practice AOD
De-long Ferrite .0

Severity .000

Knowingly & willfully falsifying or concealing a material act on this form or making false, fictitious or fraudulent statements or representations herein could constitute a felony punishable under federal statutes.

We hereby certify that the chemical analysis and/or test results shown in this report are correct as contained in the records of the company.

M.F. Marcanio, Quality Manager

DATE 3-28-5
CUSTOMER CBS Canada
WORK ORDER # D67536
QUANTITY 1824
THESE TESTS ARE FOR
MATERIAL SHIPPED ON YOUR
P.O. # 20077875 OF 49774
FROM COPPER & BRASS SALES, INC.
QUALITY REP. Rose Catalano

M.F. Marcanio